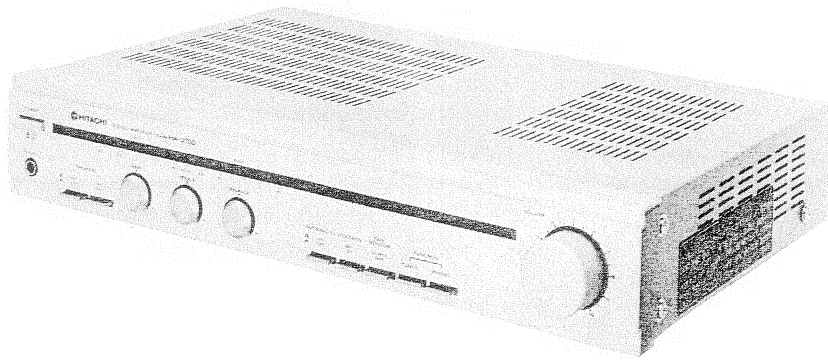
HITACHI

HA-2700

SERVICE MANUAL

English
Deutsch
Français

No. 205



SPECIFICATONS

Power output (Both channels driven)	20 watts* per channel min. RMS, at 8 ohms from 20 Hz to 20 kHz, with no more than 0.05% total harmonic distortion. 20W/ch+20W/ch (4/8ohms, 1kHz, T.H.D., 0.05%) 23W/ch+23W/ch (4/8ohms, 1kHz, T.H.D., 0.05%, momentary)
Power bandwidth	5 Hz – 30 kHz (8 ohms, T.H.D. 0.08% 1/2 Rated)
Frequency characteristics	
TUNER, TAPE	10 Hz – 50 kHz (+0.5, –3.0 dB)
PHONO	RIAA ±0.5 dB)
Harmonic distortion (8 ohms)	
(at rated output)	Less than 0.05%
(at 1/2 rated output)	Less than 0.05%
Intermodulation distortion	
(at 1/2 rated output)	Less than 0.05%
Input sensitivity/Impedance	
PHONO	2.5 mV (47 k-ohms)
TUNER, AUX	150 mV/40 k-ohms
TAPE PLAY	150 mV/40 k-ohms

Output level	
TAPE REC OUT	150 mV
Phono overload level (at 1 kHz, T.H.D. 0.05%)	150 mV
Signal-to-noise ratio (IHF, A network)	
PHONO	80 dB
TUNER, AUX, TAPE	100 dB
Damping factor	25 (1 kHz, 8 ohms)
Bass control	±8 dB (100 Hz)
Treble control	±8 dB (10 kHz)
Loudness control	+6 dB (100 Hz) +4 dB (10 kHz)
Subsonic filter	20 Hz
Semi-conductors	2 ICs, 41 transistors and 35 diodes (10 LEDs)
Power supply	AC 120 V 60 Hz, ~220 V 50/60 Hz ~240 V 50/60 Hz or ~120 V/220 V/240 V 50/60 Hz
Power consumption	120 W (at 1/3 rated output) 200 W (at rated output)
Dimensions	435 (W) x 83 (H) x 299 (D) mm
Weight	4.8 kg

Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers

Specifications and designs may be changed without notice for improvement

FEATURES

1. Low-distortion power amplifier
2. 10-LED power indication
3. Connection facilities for two pairs of speakers
4. New ICs in the Equalizer
5. Subsonic filter that cuts out rumble and wow in the ultra-low frequencies without impairing the sound quality
6. Sleek and chic design

STEREO AMPLIFIER

May 1980

TECHNISCHE DATEN

Ausgangsleistung	20 Watt/Kanal + 20 Watt/Kanal (beide Kanäle ausgesteuert an 8 Ohm, 20 Hz – 20 kHz, T.H.D. 0,05%)
DIN 4/8 Ohm	20Watt/kanal +20Watt/kanal (an4/8ohm, 1kHz, T.H.D., 0.05%)
DIN 4 Ohm	23Watt/kanal +23Watt/kanal (4/8 ohm, 1kHz, T.H.D., 0.05%, momentan)
Leistungsbandbreite	5 Hz – 30 kHz (an 8 Ohm, Klirrgrad 0,08%, halbe Nennleistung)
Frequenzcharakteristik	
TUNER, TAPE	10 Hz – 50 kHz (+0,5, –3,0 dB)
PHONO	RIAA-Kennlinie ±0,5 dB
Klirrfaktor (8 Ohm)	
(bei Nennleistung)	Kleiner als 0,05%
(bei halber Nennleistung)	Kleiner als 0,05%
Intermodulations-Verzerrung	
(bei halber Nennleistung)	Kleiner als 0,05%
Eingangsempfindlichkeit/Impedanz	
PHONO	2,5 mV (47 kOhm)
TUNER, AUX	150 mV/40 kOhm
TAPE PLAY	150 mV/40 kOhm
Ausgangspegel	
TAPE REC OUT	150 mV
Phonoüberlastungspegel (bei 1 kHz, 0,05% T.H.D.)	150 mV
Geräuschspannungsabstand	
(IHF, A-Netz)	
PHONO	80 dB
TUNER, AUX, TAPE	100 dB
Dämpfungsfaktor	25 (1 kHz, 8 Ohm)
Tiefeneinstellung	±8 dB (100 Hz)
Höheneinstellung	±8 dB (10 kHz)
Gehörrichtige Lautstärkekorrektur	+6 dB (100 Hz)
	+4 dB (10 kHz)
Subsonicfilter-Schalter	20 Hz
Bestückung	2 ICs, 41 Transistoren und 35 Dioden (10 LED)
Netzspannung	Wechselstrom 120 V 60 Hz, ~220 V 50/60 Hz, ~240 V 50/60 Hz oder ~120 V/220 V/240 V 50/60 Hz
Leistungsaufnahme	120 W (bei 1/3 Nennleistung) 200 W (bei Nennleistung)
Abmessungen	435 (B) x 83 (H) x 299 (T) mm
Gewicht	4,8 kg

Änderungen der Konstruktion und technischen Daten bleiben im Sinne der ständigen Verbesserung vorbehalten.

MERKMALE

1. **Verzerrungsarmer Leistungsverstärker**
2. **10 LED-Leistungskontrollen**
3. **Anschlußeinrichtungen für zwei Lautsprecherpaare**
4. **Neue integrierte Schaltkreise (ICs) im Phono-Entzerrer**
5. **Subsonic-Filter unterdrückt Rumpeln und Jaulen in den extrem niedrigen Frequenzen, ohne die Klangqualität zu beeinträchtigen**
6. **Schnittiges, modernes Design**

CARACTERISTIQUES TECHNIQUES

Puissance de sortie	20 W/can. + 20 W/can. (deux canaux en fonction sous 8 ohms, 20–20 000 Hz, D.H.T. 0,05%)
	20W/can. +20W/can. (4/8ohms, 1kHz, D.H.T., 0.05%)
	23W/can. +23W/can. (4/8ohms, 1kHz, D.H.T., 0.05%, momentané)
Bande passante	5 Hz – 30 kHz (8 ohms, 1/2 de la puissance nominale)
Caractéristiques de fréquence	
TUNER, TAPE	10 Hz – 50 kHz (+0,5, –3,0 dB)
PHONO	RIAA ±0,5 dB
Distorsion harmonique (8 ohms)	
(à la puissance nominale)	Inférieure à 0,05%
(à la moitié de la puissance nominale)	Inférieure à 0,05%
Distorsion d'intermodulation	
(à la moitié de la puissance nominale)	Inférieure à 0,05%
Sensibilité d'entrée/Impédance	
PHONO	2,5 mV (47 k-ohms)
TUNER, AUX	150 mV/40 k-ohms
TAPE PLAY	150 mV/40 k-ohms
Niveau de sortie	
TAPE REC OUT	150 mV
Niveau de surcharge phono	
(à 1 kHz, D.H.T. 0,05%)	150 mV
Rapport signal/bruit	
(IHF, réseau A)	
PHONO	80 dB
TUNER, AUX, TAPE	100 dB
Facteur d'amortissement	25 (1 kHz, 8 ohms)
Réglage de graves	±8 dB (100 Hz)
Réglage des aigues	±8 dB (10 kHz)
Correction physiologique	+6 dB (100 Hz)
	+4 dB (10 kHz)
Filtre subsonique	20 Hz
Semiconducteurs	2 CI, 41 transistors et 35 diodes (10 LED)
Alimentation	CA 120 V 60 Hz, ~ 220 V 50/60 Hz, ~ 240 V 50/60 Hz ou ~ 120 V/220 V/240 V 50/60 Hz
Consommation	120 W (à 1/3 de la puissance nominale) 200 W (à la puissance nominale)
Dimensions	435 (L) x 83 (H) x 299 (P) mm
Poids	4,8 kg

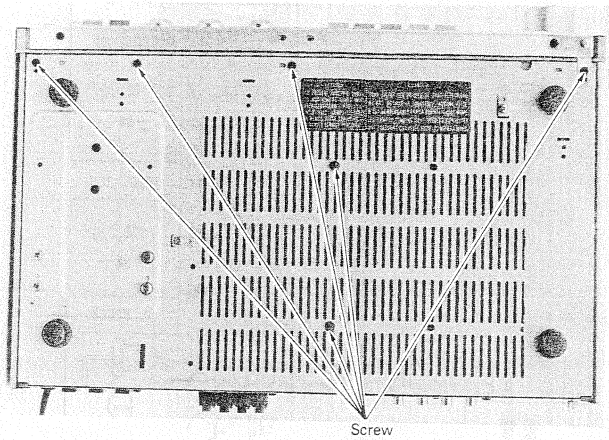
Les caractéristiques techniques et la présentation peuvent être modifiées sans préavis pour des raisons d'amélioration.

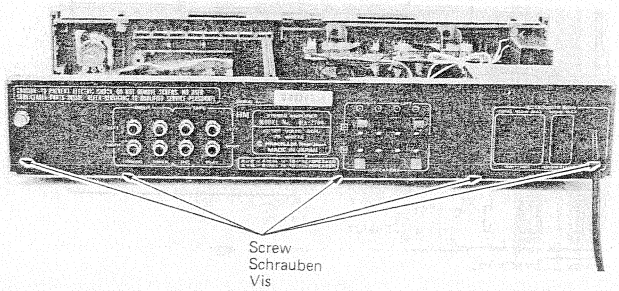
CARACTERISTIQUES

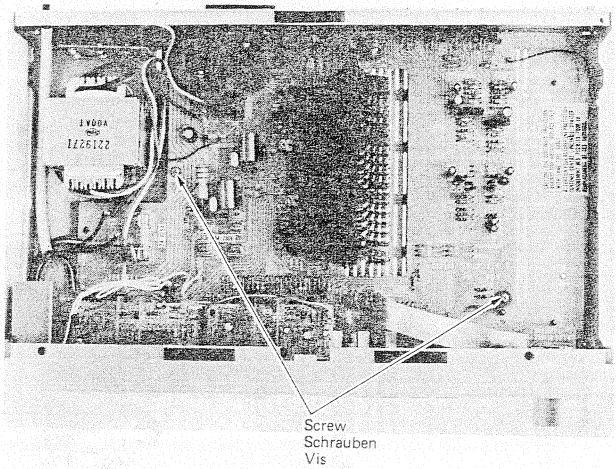
1. **Amplificateur de puissance à faible distorsion**
2. **Indication de puissance par 10 diodes**
3. **Possibilité de raccordement de deux paires d'enceintes**
4. **De nouveaux circuits intégrés dans le correcteur**
5. **Un filtre subsonique qui permet de supprimer le rumble et le pleurage dans les très basses fréquences sans réduire la qualité du son**
6. **Construction élégante et mince**

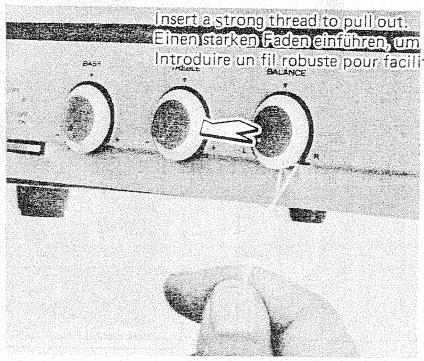
DISASSEMBLY AND REPLACEMENT·ZERLEGUNG UND AUSTAUSCH·DEMONTAGE ET REMONTAGE

- Removing the printed wiring boards
- Ausbau der Leitterplatten
- Déposer des plaquettes à circuit imprimé








Insert a strong thread to pull out.
Einen starken Faden einführen, um das Teil herauszuziehen.
Introduire un fil robuste pour faciliter le dégagement.

ADJUSTMENT·ABGLEICH·REGLAGE

- **IDLE CURRENT**

Adjust R751 so that the voltage of both terminals of the emitter resistor R720 (0.22 ohms) of the output transistor Q710 become 8.8 mV ±1 mV (current value 40 mA ±4.5 mA).

[Note] This adjustment should be performed more than 5 minutes after the power switch is turned ON.

- **BLINDSTROM**

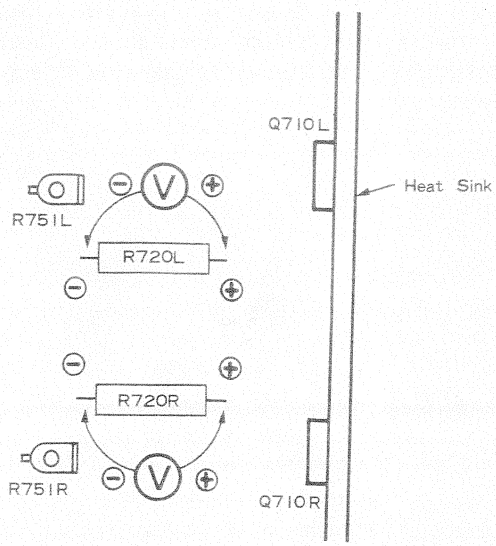
R751 ist so einzustellen, daß die Spannung an beiden Klemmen des Emitter-Widerstandes R720 (0,22 Ohm) des Leistungstransistors Q710 8,8 mV ±1 mV beträgt (Stromstärke 40 mA ±4,5 mA).

[Hinweis] Dieser Abgleich ist mindestens fünf Minuten nach dem Einschalten des Netzschalters durchzufunren.

- **COURANT DEWATTE**

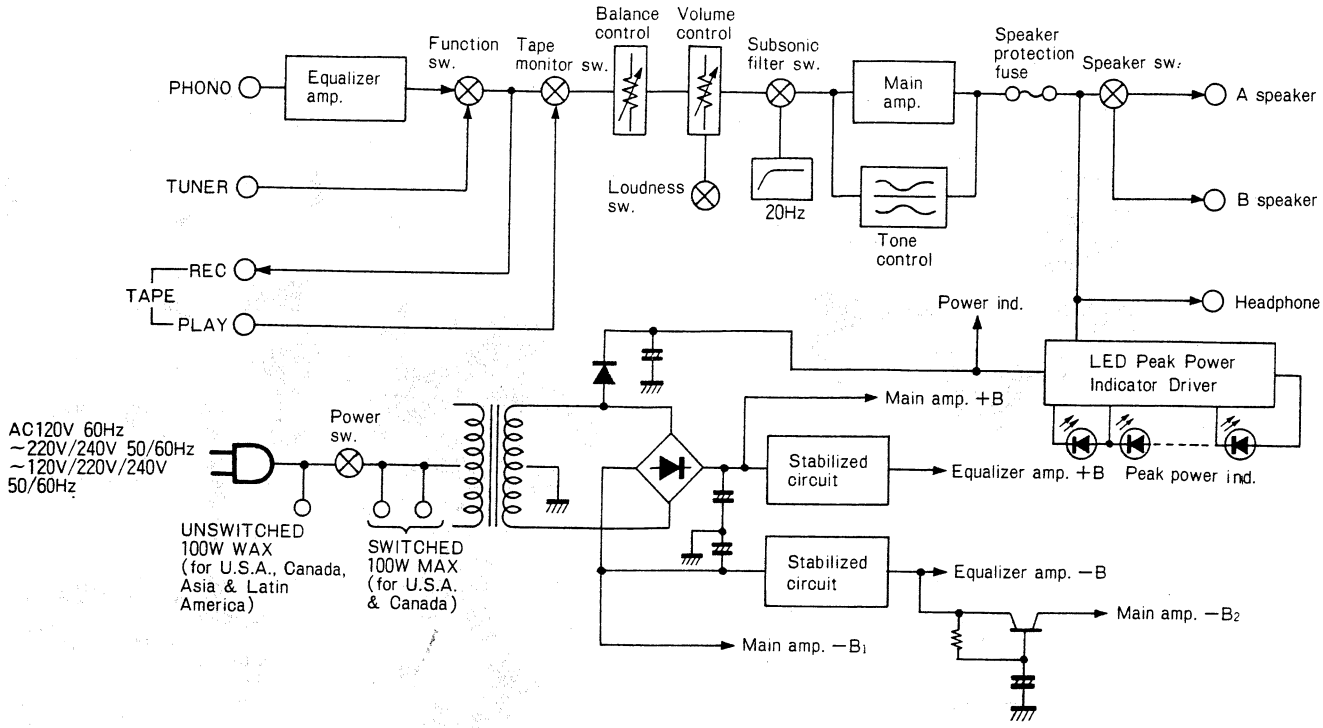
Ajuster R751 de telle sorte que la tension des deux bornes de la résistance d'émetteur R720 (0,22 ohms) du transistor de sortie Q710 atteigne 8,8 mV ±1 mV (valeur du courant: 40 mA ±4,5 mA).

[Remarque] Ce réglage doit ètre fait plus de 5 minutes après la mise en marche de l'interrupteur général.



AUDIO P. W. B.

BLOCK DIAGRAM·BLOCK SCHEMA·SCHEMA



DESCRIPTION OF THE NEW CIRCUIT · HINWEIS FÜR DEN ERSATZTEILAUSTAUSCH · REMARQUES CONCERNANT LE REMPLACEMENT DES PIECES

LED power meter drive circuit

5 LEDs per channel are used to indicate output level. These LEDs are driven by meter circuit; the relationship between the output level and the number of LEDs lit when 8Ω speakers are connected is as shown in Fig. 1. Incidentally, Fig. 2 shows the operation circuit.

Treiberkreis für LED-Leistungsmesser

Der Ausgangspegel wird mit Hilfe von fünf LEDs pro Kanal angezeigt. Diese Leuchtdioden werden über den Instrumentenschaltkreis angesteuert. Der Zusammanhang zwischen dem Ausgangspegel und der Anzahl der eingeschalteten LEDs bei Verwendung von 8 Ohm Lautsprechern ist in Abb. 1 dargestellt. In Abb. 2 ist der Schaltplan abgebildet.

Circuit d'excitation d'indicateur de puissance à diodes électroluminescentes

Une rampe de 5 diodes électroluminescentes est utilisée pour que le niveau de sortie soit précisément indiqué. Ces diodes électroluminescentes sont excitées par un circuit conçu à cet effet; le rapport qui existe entre le niveau de sortie et le nombre de diodes électroluminescentes allumées quand des haut-parleurs à impédance de 8 ohms est représenté sur la figure 1. Par ailleurs, la figure 2 représente le circuit de commande.

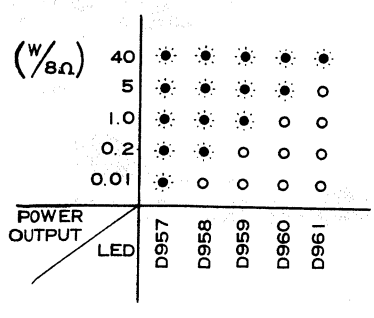


Fig. 1

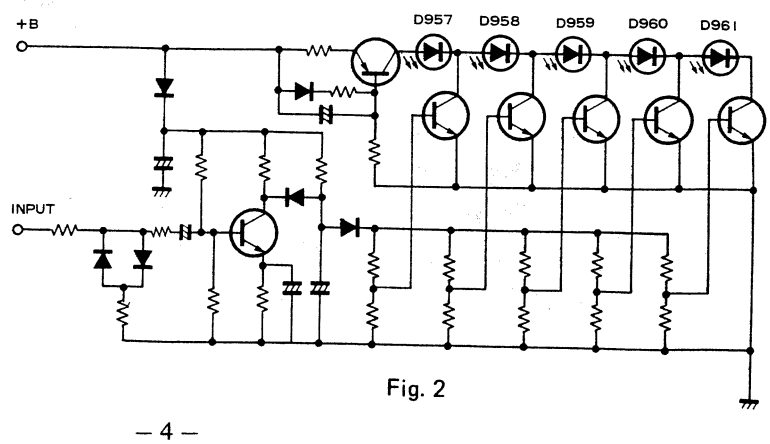
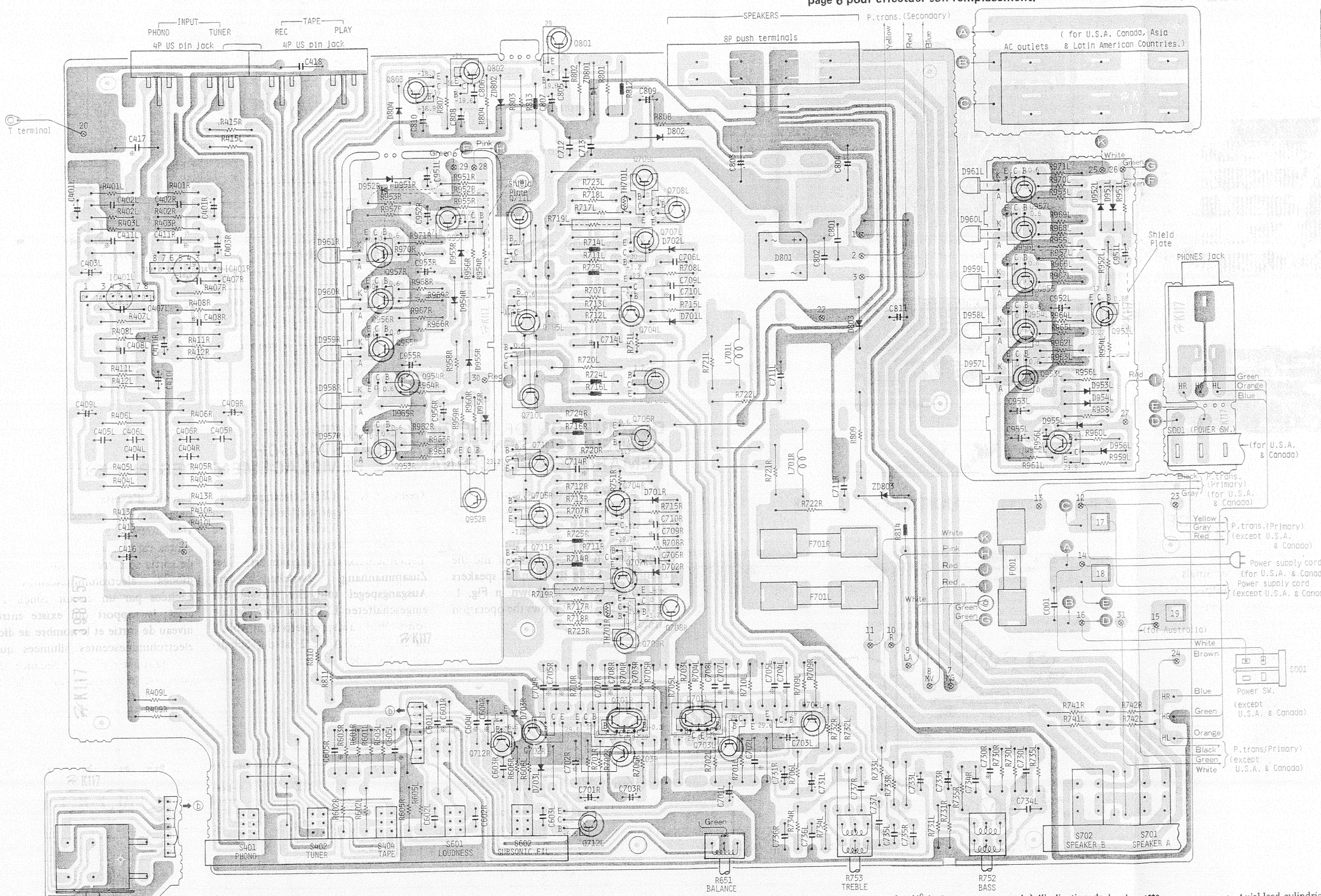


Fig. 2

PRINTED WIRING BOARD·PRINTPLATTEN·PLAN DE BASE

The circuit symbol (▬) means a fuse resistor. When replacing it with new one, refer to the CAUTION on page 6.
Das Schaltsymbol (▬) steht für Schmelzwiderstand. Beim Austausch bitte Seite 6 ZUR BEACHTUNG nachlesen.
Le symbole de circuit (▬) signifie qu'il s'agit d'une résistance à fusible. Consulter les instructions "ATTENTION" de la page 6 pour effectuer son remplacement.



HA12017	1S2076A 1S2473 HZ-20
2SA872 2SC1775 2SB716 2SC458 2SA844 2SD667 2SD666 2SB647 2SB646 2SC1345 2SC1740LN	ERB12-01 EQB01-10S
2SD1029K 2SBB13K	GL-5PR6H
2SC2259	S4VB20

The terminal No. shows the stamp on the printed wiring board. This number matches the number in the circuit diagram.

Die Anschlussklemmen sind auf der gedruckten Schaltung numeriert. Die Nummern stimmen mit den Nummern im Schaltplan überein.

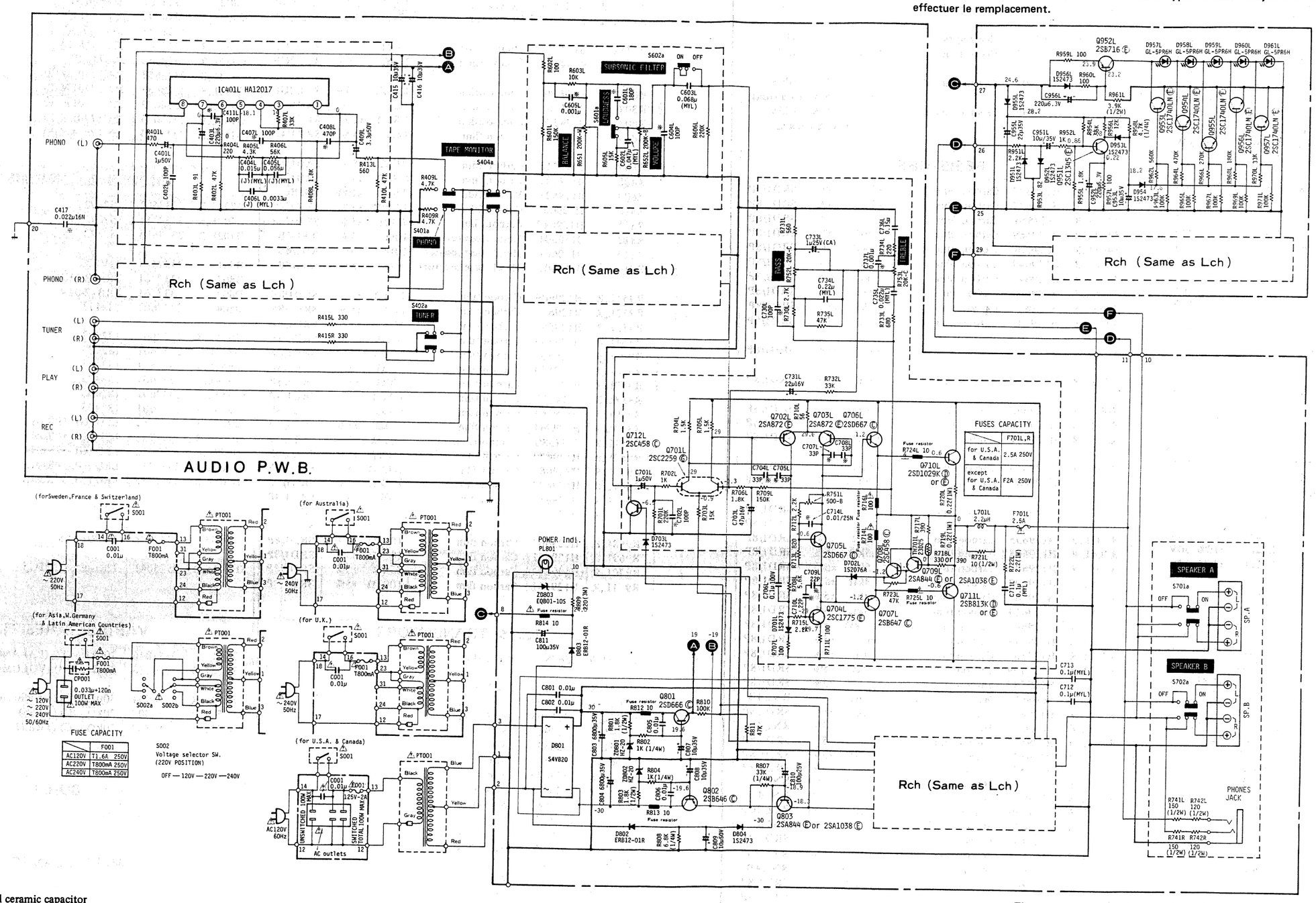
Le N° de borne correspond à l'indication de la plaquette à circuit imprimé. Ce numéro correspond au numéro du schéma de montage.

∗: Axial lead cylindrical ceramic capacitor
∗: Zylindrischer Keramikkondensator mit axialer zuleitung
∗: Condensateur céramique cylindrique à conducteur axial

CIRCUIT DIAGRAM·SCHALTPLAN·PLAN DE CIRCUIT

PRODUCT SAFETY NOTE: Components marked with a ⚠ have special characteristics important to safety.
SICHERHEITSHINWEIS: Die mit ⚠ gekennzeichneten Komponenten haben wichtige Sicherheitsaufgaben.
NOTICE DE SECURITE DE FABRICATION: Les composants qui sont accompagnés du symbole ⚠ possèdent des caractéristiques spéciales.

CAUTION: Fuse resistors are used to improve safety (to protect the circuit). When replacing them with new ones, be sure to use the designated type. Always use the designated fuse without fail.
ZUR BEACHTUNG: Schmelzwiderstände sind zur Erhöhung der Sicherheit vor gesehen (zum Schutz der Schaltung). Bei Austausch bitte nur die vorgeschriebene Type benutzen. Vergewissern Sie sich, daß die richtige Type gewählt ist.
ATTENTION: Les résistance à fusible sont faites pour améliorer la sécurité de l'appareil (protection de circuit). Pour les remplacer, utiliser le même type. Utiliser toujours le modèle de fusible spécifié pour effectuer le remplacement.



*: Axial lead cylindrical ceramic capacitor
*: Zylindrischer Keramikkondensator mit axialer zuleitung
*: Condensateur céramique cylindrique à conducteur axial

The circuit diagram is subject to change for improvement without notice.
Änderungen des Schaltplans im Sinne ständiger Verbesserung vorbehalten.
Le schöema de montage est sujet Öa modification sans pröeavis, pour des raisons d'amöelioration.

REPLACEMENT PARTS LIST·ERSATZTEILLISTE·TABLEAU DES PIECE

PRODUCT SAFETY NOTE: Components marked with a ⚠ have special characteristics important to safety.
SICHERHEITSHINWEIS: Die mit ⚠ gekennzeichneten Komponenten haben wichtige Sicherheitsaufgaben.
NOTICE DE SECURITE DE FABRICATION: Les composants qui sont accompagnés du symbole ⚠ possèdent des caractéristiques spéciales.

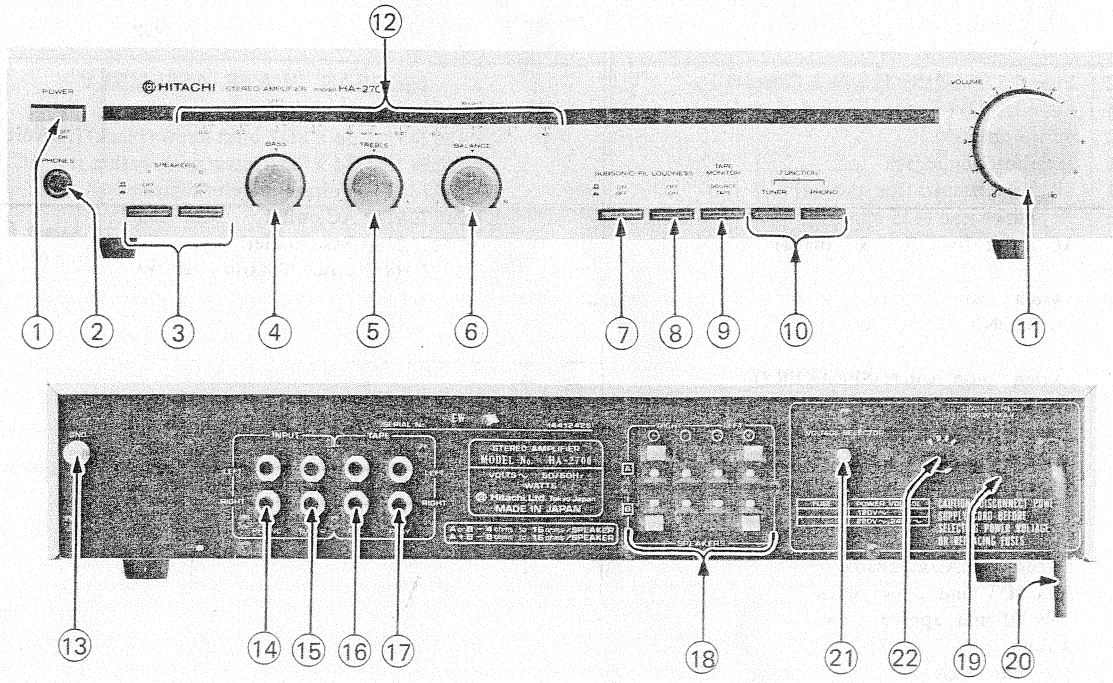
SYMBOL NO.	STOCK NO.	DESCRIPTION
CAPACITORS		
C401L,R	0252811	Electrolytic 1μF 50V
C402L,R	H230036	Cylindrical ceramic 100pF ±5% 50V
C403L,R	0252232	Electrolytic 220μF 6.3V
C404L,R	1275212	Mylar, film 0.015μF ±5% 50V
C405L,R	1275235	Mylar, film 0.056μF ±5% 50V
C406L,R	1274214	Mylar, film 3300pF ±5% 50V
C407L,R	H230036	Cylindrical ceramic 100pF ±5% 50V
C408L,R	H240008	Cylindrical ceramic 470pF ±10% 50V
C409L,R	0252813	Electrolytic 3.3μF 50V
C411L,R	H230036	Cylindrical ceramic 100pF ±5% 50V
C415	0252721	Electrolytic 10μF 35V
C416	0252721	Electrolytic 10μF 35V
C417	H240108	Cylindrical ceramic 0.022μF ±30% 16V
C601L,R	H240003	Cylindrical ceramic 180pF ±10% 50V
C602L,R	0275015	Mylar, film 0.047μF ±10% 50V
C603L,R	0275016	Mylar, film 0.068μF ±10% 50V
C604L,R	H230036	Cylindrical ceramic 100pF ±10% 50V
C605L,R	H240020	Cylindrical ceramic 1000pF ±20% 50V
C701L,R	0252811	Electrolytic 1μF 50V
C702L,R	H230036	Cylindrical ceramic 100pF ±5% 50V
C703L,R	0252525	Electrolytic 47μF 16V
C704L,R	H230024	Cylindrical ceramic 33pF ±5% 50V
C705L,R	H230024	Cylindrical ceramic 33pF ±5% 50V
C706L,R	0279954	Mylar, film 0.1μF ±10% 100V
C707L,R	H230024	Cylindrical ceramic 33pF ±5% 50V
C708L,R	H230024	Cylindrical ceramic 33pF ±5% 50V
C709L,R	H230020	Cylindrical ceramic 22pF ±5% 50V
C710L,R	H230020	Cylindrical ceramic 22pF ±5% 50V
C711L,R	0276011	Mylar, film 0.1μF ±10% 50V
C712	0276011	Mylar, film 0.1μF ±10% 50V
C713	0276011	Mylar, film 0.1μF ±10% 50V
C714L,R	H240106	Cylindrical ceramic 0.01μF ±30% 25V
C730L,R	H230036	Cylindrical ceramic 100pF ±5% 50V
C731L,R	0252521	Electrolytic 22μF 16V
C733L,R	0251967	Electrolytic 1μF 25V
C734L,R	0276013	Mylar, film 0.22μF ±10% 50V
C735L,R	0275013	Mylar, film 0.022μF ±10% 50V
C736L,R	0276012	Mylar, film 0.15μF ±10% 50V
C737L,R	H240020	Cylindrical ceramic 1000pF ±20% 50V
C801	0245408	Ceramic, discal 0.01μF ±20% 500V
C802	0245408	Ceramic, discal 0.01μF ±20% 500V
C803	0259928	Electrolytic 6800μF 35V
C804	0259928	Electrolytic 6800μF 35V
C805	0275011	Mylar, film 0.01μF ±10% 50V
C806	0275011	Mylar, film 0.01μF ±10% 50V
C807	0252721	Electrolytic 10μF 35V
C808	0252721	Electrolytic 10μF 35V
C809	0252821	Electrolytic 10μF 50V
C810	0252631	Electrolytic 100μF 25V
C811	0252731	Electrolytic 100μF 35V
C951L,R	0252721	Electrolytic 10μF 35V
C952L,R	0252232	Electrolytic 220μF 6.3V
C953L,R	0252721	Electrolytic 10μF 35V
C955L,R	0252722	Electrolytic 22μF 35V
C956L,R	0252232	Electrolytic 220μF 6.3V
⚠C001	0243901	Ceramic, discal 0.01μF +100 −0 % 400V (except U.S.A. & Canada)
⚠C001	0243899	Ceramic, discal 0.01μF +100 −0 % 125V (for U.S.A. & Canada)
RESISTORS		
R401L,R	H129577	Carbon film 470Ω ±5% SRD1/8P
R402L,R	H129647	Carbon film 47kΩ ±5% SRD1/8P
R403L,R	0129554	Carbon film 91Ω ±5% SRD1/8P
R404L,R	H129569	Carbon film 220Ω ±5% SRD1/8P
R405L,R	0129616	Carbon film 4.3kΩ ±5% SRD1/8P
R406L,R	H129649	Carbon film 56kΩ ±5% SRD1/8P
R407L,R	H129643	Carbon film 33kΩ ±5% SRD1/8P
R408L,R	H129607	Carbon film 1.8kΩ ±5% SRD1/8P
R409L,R	H129617	Carbon film 4.7kΩ ±5% SRD1/8P
R410L,R	H129647	Carbon film 47kΩ ±5% SRD1/8P
R413L,R	H129579	Carbon film 560Ω ±5% SRD1/8P
R415L,R	H129573	Carbon film 330Ω ±5% SRD1/8P
R601L,R	H129665	Carbon film 150kΩ ±5% SRD1/8P
R602L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R603L,R	H129631	Carbon film 10kΩ ±5% SRD1/8P
R605L,R	H129635	Carbon film 15kΩ ±5% SRD1/8P
R606L,R	H129669	Carbon film 220kΩ ±5% SRD1/8P
R701L,R	H129669	Carbon film 220kΩ ±5% SRD1/8P
R702L,R	H129601	Carbon film 1kΩ ±5% SRD1/8P
R703L,R	H129635	Carbon film 15kΩ ±5% SRD1/8P
R704L,R	H129605	Carbon film 1.5kΩ ±5% SRD1/8P
R705L,R	H129605	Carbon film 1.5kΩ ±5% SRD1/8P
R706L,R	H129607	Carbon film 1.8kΩ ±5% SRD1/8P
R707L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R708L,R	H129619	Carbon film 5.6kΩ ±5% SRD1/8P
R709L,R	H129665	Carbon film 150kΩ ±5% SRD1/8P
R710L,R	H129549	Carbon film 56Ω ±5% SRD1/8P
R711L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R712L,R	H129609	Carbon film 2.2kΩ ±5% SRD1/8P
R713L,R	H129583	Carbon film 820Ω ±5% SRD1/8P
⚠R714L,R	0110621	Metal (fuse resistor) 100Ω ±5% RN1/4B
R715L,R	H129609	Carbon film 2.2kΩ ±5% SRD1/8P
⚠R716L,R	0110621	Metal (fuse resistor) 100Ω ±5% RN1/4B
R717L,R	H129575	Carbon film 390Ω ±5% SRD1/8P
R718L,R	H129573	Carbon film 330Ω ±5% SRD1/8P
	H129575	Carbon film 390Ω ±5% SRD1/8P
R719L,R	0119013	Metal 0.22Ω ±10% RN1B
R720L,R	0119013	Metal 0.22Ω ±10% RN1B
R721L,R	0134289	Composition 10Ω ±10% RC1/2GF
R722L,R	0119025	Metal 2.2Ω ±10% RN1B
R723L,R	H129647	Carbon film 47kΩ ±5% SRD1/8P
⚠R724L,R	0110601	Metal (fuse resistor) 10Ω ±5% RN1/4B
⚠R725L,R	0110601	Metal (fuse resistor) 10Ω ±5% RN1/4B
R730L,R	H129611	Carbon film 2.7kΩ ±5% SRD1/8P
R731L,R	H129579	Carbon film 560Ω ±5% SRD1/8P
R732L,R	H129643	Carbon film 33kΩ ±5% SRD1/8P
R733L,R	H129581	Carbon film 680Ω ±5% SRD1/8P
R734L,R	H129569	Carbon film 220Ω ±5% SRD1/8P
R735L,R	H129647	Carbon film 47kΩ ±5% SRD1/8P
R741L,R	0134363	Composition 150Ω ±10% RC1/2GF
R742L,R	0134362	Composition 120Ω ±10% RC1/2GF
R801	0134376	Composition 1.8kΩ ±10% RC1/2GF
R802	0114161	Carbon film 1kΩ ±5% SRD1/4P
R803	0134376	Composition 1.8kΩ ±10% RC1/2GF
R804	0114161	Carbon film 1kΩ ±5% SRD1/4P
R807	0114213	Carbon film 33kΩ ±5% SRD1/4P
R808	0114181	Carbon film 6.8kΩ ±5% SRD1/4P
R809	0119625	Metal oxide 220Ω ±10% RS3B
R810	H129661	Carbon film 100kΩ ±5% SRD1/8P
R811	H129647	Carbon film 47kΩ ±5% SRD1/8P
⚠R812	0110601	Metal (fuse resistor) 10Ω ±5% RN1/4B
⚠R813	0110601	Metal (fuse resistor) 10Ω ±5% RN1/4B
⚠R814	0110601	Metal (fuse resistor) 10Ω ±5% RN1/4B
R951L,R	H129609	Carbon film 2.2kΩ ±5% SRD1/8P
R952L,R	H129601	Carbon film 1kΩ ±5% SRD1/8P
R953L,R	H129553	Carbon film 82Ω ±5% SRD1/8P
R954L,R	H129649	Carbon film 56kΩ ±5% SRD1/8P
R955L,R	H129607	Carbon film 1.8kΩ ±5% SRD1/8P
R956L,R	H129633	Carbon film 12kΩ ±5% SRD1/8P
R957L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R958L,R	0114177	Carbon film 4.7kΩ ±5% SRD1/4P
R959L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R960L,R	H129561	Carbon film 100Ω ±5% SRD1/8P
R961L,R	0134380	Composition 3.9kΩ ±10% RC1/2GF
R962L,R	H129679	Carbon film 560kΩ ±5% SRD1/8P
R963L,R	H129661	Carbon film 100kΩ ±5% SRD1/8P
R964L,R	H129677	Carbon film 470kΩ ±5% SRD1/8P
R965L,R	H129661	Carbon film 100kΩ ±5% SRD1/8P
R966L,R	H129671	Carbon film 270kΩ ±5% SRD1/8P
R967L,R	H129661	Carbon film 100kΩ ±5% SRD1/8P
R968L,R	H129667	Carbon film 180kΩ ±5% SRD1/8P
R969L,R	H129661	Carbon film 100kΩ ±5% SRD1/8P
R970L,R	H129643	Carbon film 33kΩ ±5% SRD1/8P
R971L,R	H129661	Carbon film 100kΩ ±5% SRD1/8P
ICs & TRANSISTORS		
IC401L,R	2367871	HA12017
Q701L,R	2367654	2SC2259 Ⓖ
Q702L,R	2327893	2SA872 Ⓔ
Q703L,R	2327893	2SA872 Ⓔ
Q704L,R	2327913	2SC1775 Ⓔ
Q705L,R	2328635	2SD667 Ⓒ
Q706L,R	2328635	2SD667 Ⓒ
Q707L,R	2328625	2SB647 Ⓒ
Q708L,R	2328282	2SC458 Ⓒ
Q709L,R	2328083	2SA844 Ⓔ
	2328773	2SA1038 Ⓔ
Q710L,R	2329194	2SD1029K Ⓓ
	2329195	2SD1029K Ⓔ
Q711L,R	2329204	2SB813K Ⓓ
	2329205	2SB813K Ⓔ
Q712L,R	2328282	2SC458 Ⓒ
Q801	2328442	2SD666 Ⓒ
Q802	2328452	2SB646 Ⓒ
Q803	2328083	2SA844 Ⓔ
	2328773	2SA1038 Ⓔ
Q951L,R	2327363	2SC1345 Ⓔ
Q952L,R	2328862	2SB716 Ⓔ
Q953L,R	2328653	2SC1740LN Ⓔ
Q954L,R	2328653	2SC1740LN Ⓔ
Q955L,R	2328653	2SC1740LN Ⓔ
Q956L,R	2328653	2SC1740LN Ⓔ
Q957L,R	2328653	2SC1740LN Ⓔ
DIODES & THERMISTORS		
D701L,R	2337601	1S2473
D702L,R	2337151	1S2076A
D703L,R	2337601	1S2473
D801	2337461	S4VB20
D802	2337761	ERB12-01R
D803	2337761	ERB12-01R
D804	2337601	1S2473
D951L,R	2337601	1S2473
D952L,R	2337601	1S2473
D953L,R	2337601	1S2473
D954L,R	2337601	1S2473
D955L,R	2337601	1S2473
D956L,R	2337601	1S2473
D957L,R	2337752	LED (GL-5PR6H)
D958L,R	2337752	LED (GL-5PR6H)
D959L,R	2337752	LED (GL-5PR6H)
D960L,R	2337752	LED (GL-5PR6H)
D961L,R	2337752	LED (GL-5PR6H)
ZD801	2337183	HZ-20
ZD802	2337183	HZ-20
ZD803	2337778	EQB01-10S
TH701L,R	0576041	Thermistor 23D25
VARIABLE RESISTORS		
R651	0151846	200kΩ - (W) (BALANCE)
R652L,R	0156156	200kΩ - (B) (VOLUME)
R751L,R	0150954	500Ω - (B) (for idle current adj.)
R752L,R	0151807	20kΩ - (C) (BASS)
R753L,R	0151807	20kΩ - (C) (TREBLE)
COILS		
L701L,R	2227143	Audio trap coil - 2.2μH
MISCELLANEOUS		
⚠F001	2727563	Fuse - 2A ST6 (for U.S.A. & Canada)
⚠F001	2727198	Fuse - T800mA, 250V (except U.S.A. & Canada)

SYMBOL NO.	STOCK NO.	DESCRIPTION
⚠F701L,R	2727222	Fuse-2.5A SS2 (for U.S.A. & Canada)
⚠F701L,R	2727334	Fuse-2A (Q) (except U.S.A. & Canada)
	2677392	4P US pin jack
	2677591	Jack-headphone jack
	2688121	8P push terminal (for speaker)
	2749296	7P jumper lead (135 mm)
⚠	2657461	AC outlet (for U.S.A. & Canada)
S401,402, 404,601, 602	2638673	Switch - push switch (SUBSONIC-FIL., others)
S701,702	2638622	Switch - push switch (SPEAKERS) (for U.S.A. & Canada)
S701,702	2638621	Switch - push switch (SPEAKERS) (except U.S.A. & Canada)
⚠S001	2638601	Switch - push switch (POWER) (for U.S.A. & Canada)
⚠S001	2638221	Switch - push switch (POWER) (except U.S.A. & Canada)
	4567432	3φ x 8DT bind screw (Black)
	8781440	3φ x 10 bind tapping screw
	4790098	Washer
	3246631	Escutcheon ass'y
	4574603	3φ x 10 bind double thread screw (for escutcheon fixing)
	4411941	Cover
	3286781	Knob (VOLUME)
	3286842	Knob (BASS, TREBLE, BALANCE)
	4575971	4φ x 8DT screw with washer (for cover fixing)
for DIAL MECHANISM ASSEMBLY		
	3246535	Sub panel ass'y
	3932231	Knob - push knob (SPEAKERS, others)
	3932291	Knob - push knob (POWER)
	3916411	Leg
	4567413	3φ x 10DT bind screw (for leg fixing)
	4790098	Washer
	4567423	4φ x 10DT bind screw (for P. trans fixing)
	4770255	4φ flanged nut (for P. trans. fixing)
	4567432	3φ x 8DT bind screw (for rear plate)
	4574603	3φ x 10 bind double thread screw (for sub panel, 4P US pin, other's fixing)
	4567417	3φ x 20DT bind screw (for Power SW., speaker SW. fixing)
	4784106	3φ x 10 bind tapping screw (for speaker terminal)
	4568832	3φ x 8DT flat head screw (for AC outlet)
	4573559	3φ x 8DT bind tapping screw (for heat sink)
	4567411	3φ x 6DT bind screw (for P.W.B. fixing) (Yellow)
	4567451	3φ x 6DT bind screw (Silver)
	4567431	3φ x 6DT bind screw (Black)
⚠T001	2219271	Power transformer (for U.S.A. & Canada)
⚠T001	2219272	Power transformer (except U.S.A. & Canada)
PL801	2767611	Lamp with lead wire
⚠CP001	0269014	Spark killer (for Asia & Latin American countries)

SYMBOL NO.	STOCK NO.	DESCRIPTION
for REAR PLATE ASSEMBLY		
	4567432	3φ x 8DT bind screw (Black) (for voltage selector)
	4575472	3φ x 8DT screw with washer (for AC push plate)
⚠	2627361	Voltage selector switch } (for Asia & Latin American countries)
⚠	2657281	AC outlet
	2727121	Fuse holder
⚠F001	2727198	Fuse - T800mA, 250V

SYMBOL NO.	STOCK NO.	DESCRIPTION	U.S.A. & Canada	France, W. Germany, Switzerland, Sweden	U.K.	Australia	Asia & Latin American countries
⚠	0043793	Bushing (for power supply cord)	○				
⚠	3913001	Bushing (for power supply cord)		○			
⚠	3715183	Bushing (for power supply cord)			○		
⚠	3715184	Bushing (for power supply cord)				○	
⚠	3913006	Bushing (for power supply cord)					○
⚠	2748864	Power supply cord	○				
⚠	2748751	Power supply cord		○			○
⚠	2749201	Power supply cord			○		
⚠	2747302	Power supply cord				○	
	2657371	E socket adaptor } (for ACCESSORY)					○
⚠	2727194	Fuse - T1.6A					○

FRONT AND REAR PANEL · VORDERE UND HINTERE BEDIENUNGSTAFEL · PANNEAUX AVANT ET ARRIERE



① POWER switch
② PHONES jack
③ SPEAKERS switches
④ BASS control
⑤ TREBLE control
⑥ BALANCE control
⑦ SUBSONIC FILTER switch
⑧ LOUDNESS switch
⑨ TAPE monitor switch
⑩ FUNCTION switches
⑪ VOLUME control
⑫ Peak power meter indicator
⑬ Ground terminal (GND)
⑭ PHONO INPUT terminals
⑮ TUNER INPUT terminals
⑯ TAPE REC terminals
⑰ TAPE PLAY terminals
⑱ SPEAKERS terminals
⑲ AC outlet
(3 outlets for U.S.A. & Canada sets, 1 outlet for Asia & Latin American countries sets)
⑳ Power supply cord
㉑ VOLTAGE SELECTOR
(for Asia and Latin American countries)
㉒ FUSE holder
(for Asia and Latin American countries)

① Netzschalter (POWER)
② Kopfhörer-Buchse (PHONES)
③ Lautsprecherschalter bass (SPEAKERS)
④ BASS -Regler
⑤ Höhenregler (TREBLE)
⑥ BALANCE
⑦ SUBSONIC-FILTER-Schalter
⑧ Schalter fur gehorrichtige Klangkorrektur (LOUDNESS)
⑨ Schalter für Hinterbandkontrolle (TAPE)
⑩ Funktionsschalter (FUNCTION)
⑪ Lautstärkeregler (VOLUME)
⑫ Spitzenwert-Leistungsmesser
⑬ Erdung (GND)
⑭ Plattenspieler-Eingangsanschluß (PHONO INPUT)
⑮ Tuner-Eingangsanschluß (TUNER INPUT)
⑯ Aufnahme-Anschlüsse für Tonbandgerät (TAPE REC)
⑰ Wiedergabe-Anschlüsse für Tonbandgerät (TAPE PLAY)
⑱ Lautsprecher-Klemmen (SPEAKERS)
⑲ Kaltgeräte-Steckdose (drei Steckdosen bei für USA und Kanada bestimmten Modellen; eine Steckdose bei für Asien und Lateinamerika bestimmten Modellen)
⑳ Netzkabel
㉑ Netzspannungswähler (VOLTAGE SELECTOR)
(für Asien und Lateinamerika)
㉒ Halter für Sicherung (FUSE)
(für Asien und Lateinamerika)

① Interrupteur d'alimentation (POWER)
② Prise de casque (PHONES)
③ Commutateur d'enceintes (SPEAKERS)
④ Commande des graves (BASS)
⑤ Commande des aiguës (TREBLE)
⑥ Commande d'équilibrage (BALANCE)
⑦ Commutateur de filtre subsonique (SUBSONIC FILTER)
⑧ Commutateur de correction physiologique (LOUDNESS)
⑨ Commutateur de contrôle de bande (TAPE)
⑩ Commutateur de fonction (FUNCTION)
⑪ Commande de VOLUME
⑫ Indicateur de puissance de sortie de signaux de crêtes
⑬ Borne de terre (GND)
⑭ Bornes d'entrée phono (PHONO INPUT)
⑮ Bornes d'entrée tuner (TUNER INPUT)
⑯ Bornes d'enregistrement de bande (TAPE REC)
⑰ Bornes de reproduction de bande (TAPE PLAY)
⑱ Bornes d'enceintes (SPEAKERS)
⑲ Prises C.A.
(3 prises d'alimentation sur les modèles destinés aux Etats-Unis et au Canada, 1 prise d'alimentation pour les pays d'Asie et d'Amérique Latine)
⑳ Cordon d'alimentaton C.A.
㉑ Sélecteur de tension (VOLTAGE SELECTOR) (pour l'Asie et les pays d'Amérique Latine)
㉒ Support de fusible (FUSE)
(pour l'Asie et les pays d'Amérique Latine)

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